

WHAT IS CLAIMED IS:

1           1. A method for matching user preferences with item

2 characteristics in an electronic database, wherein items are stored in a database along  
3 with associated attributes and values, the database coupled to a processor and user  
4 input device, the method comprising

5                 accepting signals from the user input device to allow a user to specify

6 preferences in the form of attributes and values;

7                 using the processor to identify one or more matches by using a

8 weighted comparison among at least one value in the preferences and at least one  
9 value in the database.

1           2. The method of claim 1, further comprising.

2 using a continuous weighting comparison.

1           3. The method of claim 1, further comprising.

2 using a discontinuous weighting comparison.

1           4. The method of claim 1, further comprising.

2 using a linear weighting comparison.

1           5. The method of claim 1, further comprising

2 using a non-linear weighting comparison.

1           6. A method for matching user preferences with item

2 characteristics in an electronic database, wherein items are stored in a database along  
3 with associated attributes and values, the database coupled to a processor and user  
4 input device, the method comprising

5                 accepting signals from the user input device to allow a user to specify

6 preferences in the form of attributes and values;

7                 using the processor to identify one or more user matches by using a

8 weighted comparison among at least one value in the preferences and at least one  
9 value in the database;

10               using the processor to identify one or more item matches by using a  
11 weighted comparison among at least one value in the database and at least one value  
12 in the preferences; and

13               informing the user of best matches, wherein the best matches include at  
14 least one match from the one or more user matches and at least one match from the  
15 one or more item matches.

1               7.       The method of claim 1, wherein the step of using the processor  
2 to identify one or more matches includes substeps of

3               identifying matches by deriving a value from the weighted comparison,  
4 wherein values indicate a range of matches from strong to weak; and

5               using a condition to identify a match, wherein the condition results in a  
6 match being identified where the match is not the strongest match.

7               8.       The method of claim 7, wherein the condition includes a  
8 consideration of a profit margin in completing a transaction based on the identified  
9 match, the method further comprising

10               selecting the match that results in the highest profit margin.

11               9.       The method of claim 1, further comprising  
12 indicating the one or more matches to a user.

13               10.      The method of claim 1, further comprising  
14 initiating a transaction based on the one or more matches.

15               11.      The method of claim 1, wherein an attribute has multiple  
16 selections per attribute.

17               12.      The method of claim 1, wherein items are goods.

18               13.      The method of claim 1, wherein items are services.

19               20.     A method for matching buyer preferences with characteristics  
21 of items being sold in an electronic marketplace, the method comprising  
22 accepting input from buyers to define buyer preferences as  
23 attribute/value pairs;

5                   storing definitions of items as attribute/value pairs; and  
6                   using weighting information with the attribute/value pairs to match  
7 buyer preferences with item characteristics by deriving a score for a match.

1                 15. The method of claim 14, wherein different weighting  
2 information is associated with two or more item characteristics.

1                 16. The method of claim 14, wherein different weighting  
2 information is associated with two or more buyer preferences.

1                 17. A method for generating a score for the strength of a match  
2 between first and second sets of attribute/value pairs, the method comprising  
3                   deriving a first score to indicate the strength of a match of the first set  
4 to the second set; and

5                   deriving a second score to indicate the strength of a match of the  
6 second set to the first set, wherein the first and second scores are not the same.

1                 18. The method of claim 1, wherein an attribute is the time at  
2 which an event occurs.

1                 19. The method of claim 17, wherein the time attribute has a range  
2 of values.

1                 20. The method of claim 1, wherein a location attribute is used to  
2 indicate location, the method further comprising  
3                   computing the absolute difference between locations specified by first  
4 and second location attributes;  
5                   using the absolute difference in identifying one or more matches.

1                 21. The method of claim 1, wherein attributes can have continuous  
2 values.

1                 22. The method of claim 20, wherein an attribute represents  
2 education in years.

1                 23. The method of claim 20, wherein an attribute represents size.

1                 24. The method of claim 20, wherein an attribute represents  
2 weight.

1                 25. The method of claim 1, further comprising

transforming a first value associated with a first attribute into a second value associated with the first attribute, wherein the second value is used in place of the first value to identify one or more matches by using a weighted comparison.

1                   26. The method of claim 1, wherein the user designates multiple  
2 attributes and values to specify a preference.

1                   27. The method of claim 1, wherein the step of using the processor  
2 to identify one or more matches includes the step of  
3                   using epsilon complementary slackness to identify the one or more  
4 matches.

28. The method of claim 1, further comprising performing a subsequent matching operation after removing preferences and characteristics of the one or more identified matches.

29. A method for matching user preferences with item characteristics in an electronic database, wherein items are stored in a database along with associated attributes and values, the database coupled to a processor and user input device, the method comprising

5 accepting signals from the user input device to allow a user to specify  
6 preferences in the form of attributes and values;  
7 using the processor to identify one or more matches after performing a  
8 step of  
9 substituting one or more attributes in the preferences.

1                   30. A method for matching user preferences with item  
2 characteristics in an electronic database, wherein items are stored in a database along  
3 with associated attributes and values, the database coupled to a processor and user  
4 input device, the method comprising

5 accepting signals from the user input device to allow a user to specify  
6 preferences in the form of attributes and values;  
7 using the processor to identify one or more matches after performing a  
8 step of  
9 substituting one or more attributes in the characteristics.

1           31. A method for matching user preferences with item  
2 characteristics in an electronic database, wherein items are stored in a database along  
3 with associated attributes and values, the database coupled to a processor and user  
4 input device, the method comprising  
5                 accepting signals from the user input device to allow a user to specify  
6 preferences in the form of attributes and values;  
7                 substituting one or more attributes in either the characteristics or the  
8 preferences; and  
9                 subsequent to the step of substituting, performing the step of using the  
10 processor to identify one or more matches by using a weighted comparison among at  
11 least one value in the preferences and at least one value in the database.